RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/583, 084_

Source: _1 FWP_

Date Processed by STIC: _6/28/06_

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _10/583,084_   CRF Edit Date: _6/28/06_
Edited by: _AL_

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence
text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID
NO's   edited:

_____

✓ Deleted: ✓ invalid beginning/end-of-file text ; ____ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other:

_____
_____
_____

RAW SEQUENCE LISTING   DATE: 06/28/2006
PATENT APPLICATION: US/10/583,084   TIME: 10:45:12

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\06282006\J583084.raw**

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 3 <110> APPLICANT: SUNTORY LIMITED
 5 <120> TITLE OF INVENTION: Arachidonic acid-containing plants and use of the plants
 7 <130> FILE REFERENCE: SU0423
 9 <140> CURRENT APPLICATION NUMBER: US/10/583,084
10 <141> CURRENT FILING DATE: 2006-06-15
12 <150> PRIOR APPLICATION NUMBER: JP 2003-419124
13 <151> PRIOR FILING DATE: 2003-12-17
15 <150> PRIOR APPLICATION NUMBER: JP 2004-097089
16 <151> PRIOR FILING DATE: 2004-03-29
18 <160> NUMBER OF SEQ ID NOS: 28
20 <170> SOFTWARE: PatentIn Ver. 2.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 457
24 <212> TYPE: PRT
25 <213> ORGANISM: Mortierella alpina
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32                  20                  25                  30
34 Leu Met Ile Ile Asp Asn Lys Val Tyr Asp Val Arg Glu Phe Val Pro
35              35                  40                  45
37 Asp His Pro Gly Gly Ser Val Ile Leu Thr His Val Gly Lys Asp Gly
38          50                  55                  60
40 Thr Asp Val Phe Asp Thr Phe His Pro Glu Ala Ala Trp Glu Thr Leu
41  65                  70                  75                  80
43 Ala Asn Phe Tyr Val Gly Asp Ile Asp Glu Ser Asp Arg Ala Ile Lys
44                  85                  90                  95
46 Asn Asp Asp Phe Ala Ala Glu Val Arg Lys Leu Arg Thr Leu Phe Gln
47                 100                 105                 110
49 Ser Leu Gly Tyr Tyr Asp Ser Ser Lys Ala Tyr Tyr Ala Phe Lys Val
50             115                 120                 125
52 Ser Phe Asn Leu Cys Ile Trp Gly Leu Ser Thr Phe Ile Val Ala Lys
53         130                 135                 140
55 Trp Gly Gln Thr Ser Thr Leu Ala Asn Val Leu Ser Ala Ala Leu Leu
56 145                 150                 155                 160
58 Gly Leu Phe Trp Gln Gln Cys Gly Trp Leu Ala His Asp Phe Leu His
59                 165                 170                 175
61 His Gln Val Phe Gln Asp Arg Phe Trp Gly Asp Leu Phe Gly Ala Phe
62                 180                 185                 190
64 Leu Gly Gly Val Cys Gln Gly Phe Ser Ser Ser Trp Trp Lys Asp Lys
65             195                 200                 205
67 His Asn Thr His His Ala Ala Pro Asn Val His Gly Glu Asp Pro Asp
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73 Phe Ser Asp Val Pro Asp Glu Glu Leu Thr Arg Met Trp Ser Arg Phe
74                 245                  250                  255
76 Met Val Leu Asn Gln Thr Trp Phe Tyr Phe Pro Ile Leu Ser Phe Ala
77                 260                  265                  270
79 Arg Leu Ser Trp Cys Leu Gln Ser Ile Met Phe Val Leu Pro Asn Gly
80           275                  280                  285
82 Gln Ala His Lys Pro Ser Gly Ala Arg Val Pro Ile Ser Leu Val Glu
83      290                  295                  300
85 Gln Leu Ser Leu Ala Met His Trp Thr Trp Tyr Leu Ala Thr Met Phe
86 305                 310                  315                  320
88 Leu Phe Ile Lys Asp Pro Val Asn Met Ile Val Tyr Phe Leu Val Ser
89                 325                  330                  335
91 Gln Ala Val Cys Gly Asn Leu Leu Ala Ile Val Phe Ser Leu Asn His
92           340                  345                  350
94 Asn Gly Met Pro Val Ile Ser Lys Glu Glu Ala Val Asp Met Asp Phe
95           355                  360                  365
97 Phe Thr Lys Gln Ile Ile Thr Gly Arg Asp Val His Pro Gly Leu Phe
98      370                  375                  380
100 Ala Asn Trp Phe Thr Gly Gly Leu Asn Tyr Gln Ile Glu His His Leu
101 385                 390                  395                  400
103 Phe Pro Ser Met Pro Arg His Asn Phe Ser Lys Ile Gln Pro Ala Val
104                 405                  410                  415
106 Glu Thr Leu Cys Lys Lys Tyr Gly Val Arg Tyr His Thr Thr Gly Met
107           420                  425                  430
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124 tacgatgtcc gcgagtttgt ccctgatcat cccggtggaa gtgtgattct cacgcacgtt 180
125 ggcaaggacg gcactgacgt ctttgacact ttccaccccg aggctgcttg ggagactctt 240
126 gccaactttt acgttggtga tattgatgag agcgatcgtg ccatcaagaa tgatgacttt 300
127 gcggccgagg ttcgcaagct gcgcaccttg ttccagtccc ttggctacta cgactcgtcc 360
128 aaggcatact atgccttcaa ggtctcgttc aacctctgca tctgggggctt gtcgactttc 420
129 attgttgcca agtggggcca gacctcgacc ctcgccaacg tgctctcggc tgcgctcttg 480
130 ggtctcttct ggcagcagtg cggatggttg gcgcacgact ttttgcacca ccaggtcttc 540
131 caggaccgtt tctggggtga tctttttcggc gccttcttgg gaggtgtctg ccagggtttc 600
132 tcgtcctcct ggtggaagga caagcacaac actcaccacg ctgctcccaa cgtccacggc 660
133 gaggatcccg acattgacac tcaccctctg ttgacctgga gtgagcatgc tctggagatg 720
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137 tcgttggtcg agcagctgtc tctggctatg cactggacct ggtacctcgc caccatgttc 960
138 ctgttcatta aggatcccgt caacatgatt gtgtactttt tggtgtcgca ggctgtttgc 1020
139 ggcaacttgt tggcgattgt gttctcgctc aaccacaacg gcatgcctgt gatctccaag 1080
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143 aaaaagtacg gtgtccgata ccataccact ggtatgatcg agggaactgc agaggtcttt 1320
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148 <211> LENGTH: 318
149 <212> TYPE: PRT
150 <213> ORGANISM: Mortierella alpina
152 <400> SEQUENCE: 3
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157              20                  25                  30
159 Asp Pro Leu Glu Ala Ala Leu Val Ala Gln Ala Glu Lys Phe Phe Pro
160          35                  40                  45
162 Thr Val Val His His Thr Arg Gly Phe Leu Val Ala Val Glu Ser Pro
163      50                  55                  60
165 Leu Ala Arg Glu Leu Pro Leu Met Asn Pro Phe His Val Leu Leu Ile
166  65                  70                  75                  80
168 Ala Leu Ala Tyr Leu Val Thr Val Phe Val Gly Met Gln Ile Met Lys
169              85                  90                  95
171 Asn Phe Glu Arg Phe Glu Val Lys Thr Phe Ser Leu Phe His Asn Phe
172             100                 105                 110
174 Cys Leu Val Ser Ile Ser Ala Tyr Met Cys Gly Gly Ile Leu Tyr Glu
175         115                 120                 125
177 Ala Tyr Gln Ala Asn Tyr Gly Leu Phe Glu Asn Ala Ala Asp His Thr
178     130                 135                 140
180 Val Gln Gly Leu Pro Met Ala Lys Met Ile Trp Leu Phe Tyr Phe Ser
181 145                 150                 155                 160
183 Lys Ile Met Glu Phe Val Asp Thr Met Ile Met Val Leu Lys Lys Asn
184             165                 170                 175
186 Asn Arg Gln Ile Ser Phe Leu His Val Tyr His His Ser Ser Ile Phe
187             180                 185                 190
189 Thr Ile Trp Trp Leu Val Thr Phe Val Ala Pro Asn Gly Glu Ala Tyr
190             195                 200                 205
192 Phe Ser Ala Ala Leu Asn Ser Phe Ile His Val Ile Met Tyr Gly Tyr
193     210                 215                 220
195 Tyr Phe Leu Ser Ala Leu Gly Phe Lys Gln Val Ser Phe Ile Lys Phe
196 225                 230                 235                 240
198 Tyr Ile Thr Arg Ser Gln Met Thr Gln Phe Cys Met Met Ser Ile Gln
199             245                 250                 255
201 Ser Ser Trp Asp Met Tyr Ala Met Lys Val Leu Gly Arg Pro Gly Tyr
202             260                 265                 270
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RAW SEQUENCE LISTING   DATE: 06/28/2006
PATENT APPLICATION: US/10/583,084   TIME: 10:45:12

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\06282006\J583084.raw

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207 Gly Leu Phe Tyr Asn Phe Tyr Arg Lys Asn Ala Lys Leu Ala Lys Gln
208         290                 295                 300
210 Ala Lys Ile Asp Ala Ala Lys Glu Lys Ala Arg Lys Leu Gln
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216 <212> TYPE: DNA
217 <213> ORGANISM: Mortierella alpina
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222 gcccaggccg agaagttctt ccccacggtc gttcatcaca cgcgcggctt tttggtcgcg 180
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227 gccgatcata ccgtccaggg tcttcctatg gccaagatga tctggctctt ctacttctcc 480
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229 tcgttcttgc acgtctacca ccacagctcc atcttcacca tctggtggtt ggtcaccttt 600
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233 atgtatgcca tgaaggtgct tggccgcccc ggatacccct tcttcatcac cgccctgctt 840
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240 <212> TYPE: PRT
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248                 20                 25                 30
250 Asp Val Thr Lys Phe Leu Ser Arg His Pro Gly Gly Thr Asp Thr Leu
251         35                 40                 45
253 Leu Leu Gly Ala Gly Arg Asp Val Thr Pro Val Phe Glu Met Tyr His
254         50                 55                 60
256 Glu Phe Gly Ala Ala Glu Ala Ile Met Lys Lys Tyr Tyr Val Gly Thr
257 65                 70                 75                 80
259 Leu Val Ser Asn Glu Leu Pro Ile Phe Pro Glu Pro Thr Val Phe His
260                 85                 90                 95
262 Lys Thr Ile Lys Gly Arg Val Glu Ala Tyr Phe Lys Asp Arg Asn Met
263         100                 105                 110
265 Asp Ser Lys Asn Arg Pro Glu Ile Trp Gly Arg Tyr Ala Leu Ile Phe
266         115                 120                 125
268 Gly Ser Leu Ile Ala Ser Tyr Tyr Ala Gln Leu Phe Val Pro Phe Val
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274 Ala Cys Ala Gln Val Gly Leu Asn Pro Leu His Asp Ala Ser His Phe
275                   165                    170                    175
277 Ser Val Thr His Asn Pro Thr Val Trp Lys Ile Leu Gly Ala Thr His
278                   180                    185                    190
280 Asp Phe Phe Asn Gly Ala Ser Tyr Leu Val Trp Met Tyr Gln His Met
281              195                    200                    205
283 Leu Gly His His Pro Tyr Thr Asn Ile Ala Gly Ala Asp Pro Asp Val
284      210                    215                    220
286 Ser Thr Ser Glu Pro Asp Val Arg Arg Ile Lys Pro Asn Gln Lys Trp
287 225                   230                    235                    240
289 Phe Val Asn His Ile Asn Gln His Met Phe Val Pro Phe Leu Tyr Gly
290                   245                    250                    255
292 Leu Leu Ala Phe Lys Val Arg Ile Gln Asp Ile Asn Ile Leu Tyr Phe
293              260                    265                    270
295 Val Lys Thr Asn Asp Ala Ile Arg Val Asn Pro Ile Ser Thr Trp His
296              275                    280                    285
298 Thr Val Met Phe Trp Gly Gly Lys Ala Phe Phe Val Trp Tyr Arg Leu
299      290                    295                    300
301 Ile Val Pro Met Gln Tyr Leu Pro Leu Ser Lys Val Leu Leu Leu Phe
302 305                   310                    315                    320
304 Thr Val Ala Asp Met Val Ser Ser Tyr Trp Leu Ala Leu Thr Phe Gln
305                   325                    330                    335
307 Ala Asn His Val Val Glu Glu Val Gln Trp Pro Leu Pro Asp Glu Asn
308              340                    345                    350
310 Gly Ile Ile Gln Lys Asp Trp Ala Ala Met Gln Val Glu Thr Thr Gln
311         355                    360                    365
313 Asp Tyr Ala His Asp Ser His Leu Trp Thr Ser Ile Thr Gly Ser Leu
314      370                    375                    380
316 Asn Tyr Gln Ala Val His His Leu Phe Pro Asn Val Ser Gln His His
317 385                   390                    395                    400
319 Tyr Pro Asp Ile Leu Ala Ile Ile Lys Asp Thr Cys Ser Glu Tyr Lys
320                   405                    410                    415
322 Val Pro Tyr Leu Val Lys Asp Thr Phe Trp Gln Ala Phe Ala Ser His
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330 <211> LENGTH: 1338
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332 <213> ORGANISM: Mortierella alpina
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337 catcctggtg gaacggatac tctcttgctc ggagctggcc gagatgtcac tccggttttt 180
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339 ctggtctcaa atgagttgcc catcttccca gagccaacgg tgttccataa gaccatcaag 300
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VERIFICATION SUMMARY　　　　　　　　　DATE: 06/28/2006
PATENT APPLICATION:　**US/10/583,084**　　TIME: 10:45:13

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\06282006\J583084.raw**

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

Raw Sequence Listing before editing
(for reference only)

RAW SEQUENCE LISTING   DATE: 06/26/2006
PATENT APPLICATION: **US/10/583,084**   TIME: 13:40:03

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\06262006\J583084.raw**

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   3 <110> APPLICANT: SUNTORY LIMITED
   5 <120> TITLE OF INVENTION: Arachidonic acid-containing plants and use of the plants
   7 <130> FILE REFERENCE: SU0423
C-->  9 <140> CURRENT APPLICATION NUMBER: US/10/583,084
C--> 10 <141> CURRENT FILING DATE: 2006-06-15
  12 <150> PRIOR APPLICATION NUMBER: JP 2003-419124
  13 <151> PRIOR FILING DATE: 2003-12-17
  15 <150> PRIOR APPLICATION NUMBER: JP 2004-097089
  16 <151> PRIOR FILING DATE: 2004-03-29
  18 <160> NUMBER OF SEQ ID NOS: 28
  20 <170> SOFTWARE: PatentIn Ver. 2.1
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Does Not Comply Corrected Diskette Needed

ERRORED SEQUENCES

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  617 <211> LENGTH: 20
  618 <212> TYPE: DNA
  619 <213> ORGANISM: Artificial Sequence
  621 <220> FEATURE:
  622 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer GLEr
  624 <400> SEQUENCE: 28
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E--> 635 5
E--> 637 1
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VERIFICATION SUMMARY　　　　　　　　DATE: 06/26/2006
PATENT APPLICATION: **US/10/583,084**　　　TIME: 13:40:04

Input Set : **A:\pto.da.txt**
Output Set: **N:\CRF4\06262006\J583084.raw**

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:632 M:254 E: No. of Bases conflict, this line has no nucleotides.
L:635 M:254 E: No. of Bases conflict, this line has no nucleotides.
L:637 M:254 E: No. of Bases conflict, this line has no nucleotides.